

spinning, at a circumferential velocity ratio between the front and rear rollers (circumferential velocity of a rear roller / circumferential velocity of a front roller) of 0.5 to 1.2 under heating conditions which satisfy $4 \leq y \leq -1.5x + 330$ and $(T_{gc} - 5)^{\circ}\text{C} \leq x \leq (T_{gc} + 110)^{\circ}\text{C}$ wherein T_{gc} represents a glass transition temperature of a core, x represents an annealing temperature ($^{\circ}\text{C}$), and y : an annealing time (seconds).

21. (Amended) A production method of a plastic optical fiber, comprising the step of annealing a plastic optical fiber obtained by heat-drawing an undrawn fiber obtained by melt spinning, at a circumferential velocity ratio between (circumferential velocity of a rear roller / circumferential velocity of a front roller) between the front and rear rollers of 0.5 to 1.2 under heat conditions which satisfy $4 \leq y \leq -1.5x + 330$ and $(T_{gc} - 5)^{\circ}\text{C} \leq x \leq (T_{gc} + 110)^{\circ}\text{C}$, wherein T_{gc} represents a glass transition temperature of a core, x represents an annealing temperature ($^{\circ}\text{C}$), and y represents an annealing time (seconds), while a tension of 0.35×10^6 to 1.5×10^6 Pa is applied to the fiber.

See the Appendix for amendments.